

# Glenn Research Center, Environmental Programs Manual

## Chapter 19 - ENDANGERED AND THREATENED SPECIES

**NOTE:** The current version of this Chapter is maintained and approved by the Environmental Management Office (EMO). The revision date for this chapter is September 2003. If you are referencing paper copies, please verify that it is the most current version before use. The current version is maintained on the Glenn Research Center intranet at <http://osat-ext.grc.nasa.gov/emo/pub/epm/epm-contents.pdf>. Approved by: EMO Chief, Michael Blotzer {[mailto: Michael.J.Blotzer@nasa.gov](mailto:Michael.J.Blotzer@nasa.gov)}

### PURPOSE

This chapter establishes policies and procedures for dealing with GRC projects and programs that could impact threatened or endangered species.

This chapter conforms to the GRC EMS as defined in this Manual [Chapter 1](#).

This chapter supports GRC Environmental Policy, which promotes pollution prevention, regulatory compliance, and continuous improvement.

Following the guidelines in this chapter will help achieve some of the GRC environmental objectives and targets identified, such as compliance with environmental requirements. Achievement of this target can be tracked through the number of regulatory non-compliances found.

### APPLICABILITY

This chapter is applicable to all GRC actions that may have an impact on threatened or endangered species. It is applicable to GRC employees and contractors at all levels who in any way participate in the formulation, development, and execution of qualifying NASA actions.

### DEFINITIONS

#### Critical Habitat

May be designated for listed species and consists of: (1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of the Act, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations of protection; and (2) specific areas outside the geographic area occupied by the species at the time it is listed in accordance with the provisions of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

#### Endangered species

Any species that is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insect that has been determined to be a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to humans.

#### Threatened species

Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

## BACKGROUND

Many species of animals and plants have become endangered or threatened within Ohio due to habitat destruction, harvesting and hunting, and pollution. Congress has recognized these species as having aesthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people. It is the policy of Congress that all Federal departments and agencies seek to conserve, to the extent practicable, the various species of fish or wildlife and plants facing extinction. Federal agencies must insure that any action authorized, funded, or carried out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat.

## POLICY

It is the policy of GRC to comply with all applicable Federal and State regulations with regards to endangered and threatened species.

- GRC will incorporate into the Master Facilities Plan the locations of endangered and threatened species and species management areas.

## REQUIREMENTS

The Endangered Species Act of 1973 established the purposes and policies of the United States with respect to endangered species. 50 CFR 17.11 and 17.12, implemented in 1983, address endangered and threatened species and list the species that fall into these categories. The State of Ohio maintains its own Endangered and Threatened Species programs (ORC 1517 and 1518).

The Migratory Bird Treaty Act of 1918, as amended, establishes regulations pertinent to but distinct from the Endangered Species Act of 1973.

## ENDANGERED SPECIES LISTS

Both the Federal and State governments periodically release updated lists of species that have been recognized as threatened or endangered. Local park authorities and natural history museums are also sources of information regarding species for which there may be special concerns. Several endangered and threatened species are known or suspected of inhabiting or frequenting Lewis Field and PBS. Biological surveys of both Lewis Field and PBS have been performed. Threatened and endangered species identified during the biological surveys follows.

### Plum Brook Animal Federally Listed Species

#### Threatened

*Haliaeetus leucocephalus* (bald eagle) - 2002

### Plum Brook Plant State Listed Species

#### Endangered

*Carex cephaloidea* (thin-leaf sedge) - 2001

*Hypericum gymnanthum* (least St. John's wort) – 1994/2001

*Juncus greenii* (Greene's rush) - 2001

*Prenanthes aspera* (rough rattlesnake root) - 2001

#### Threatened

*Carex conoidea* (field sedge) – 1994/2001

*Hedeoma hispidum* (rough pennyroyal) - 2001

*Helianthus mollis* (ashy sunflower) – 1994/2001

*Panicum boreale* (northern panic-grass) - 2001

*Sagittaria rigida* (deer's tongue arrowhead) - 2001

*Smilax herbacea* v. *lasioneura* (pale carrion-flower) - 2001

#### Potentially Threatened

*Arenaria lateriflora* (grove sandwort) - 1994  
*Aristida purpurescens* (purple triple-awned grass) - 2001  
*Baptisea lactea* (prairie false indigo) – 1994/2001  
*Carex alata* (broad-winged sedge) - 1994  
*Gratiola virginica* (short's hedge-hyssop) – 1994/2001  
*Hypericum majus* (tall St. John's wort) – 1994/2001  
*Juglans cinerea* (butternut) - 2001  
*Rhexia virginica* (Virginia meadow-beauty) – 1994/2001  
*Scleria triglomerata* (tall nut-rush) – 1994/2001  
*Viola lanceolata* (lance-leaved violet) – 1994/2001

#### Added

*Bromus nottowayanus* (satin brome) - 2001  
*Carex brevior* (tufted fescue sedge) - 2001

#### **Plum Brook State Listed Animals**

##### Endangered

*Bulbulcus ibis* (cattle egret) – 1994/2001  
*Haliaeetus leucocephalus* (bald eagle) - 2002  
*Spartiniphaga inops* (moth, no common name) – 2001

##### Threatened

*Bartramia longicauda* (upland sandpiper) - 1994  
*Nycticorax nycticorax* (black-crowned night heron) – 1994/2001

##### Special Interest/Concern

\**Casmerodius albus* (great egret) – 1994/2001  
\**Dendroica discolor* (black-throated green warbler) – 1994/2001  
*Emydoidea blandingii* (Blanding's turtle) - 1994  
*Elaphe vulpine gloydi* (Eastern fox snake) – 1994/2001  
\**Oporornis philadelphia* (mourning warbler) – 2001  
\**Ophedrys vernalis* (smooth green snake) – 1994/2001  
*Rallus limicola* (Virginia rail) - 2001  
\* = Division of Natural Areas and Preserves listing

#### **Lewis Field State Listed Plant Species**

##### Endangered

None observed

##### Threatened

None observed

##### Potentially Threatened

*Castanea dentata* (American chestnut) – 1995/2001  
*Vitis cinerea* (pigeon grape) – 1995/2001

##### Added

None observed

#### **Lewis Field State Listed Animals**

##### Endangered

None observed

### Threatened

None observed

### Special Interest/Concern

\**Dendroica discolor* (black-throated green warbler) – 2001

\* = Division of Natural Areas and Preserves listing

## **PROCEDURES**

Compliance with applicable regulations is maintained by following the procedures prescribed in Chapter 2, National Environmental Policy Act. For every proposed program or project at GRC with the potential for environmental impacts, the Environmental Management Office reviews the project for impacts on threatened or endangered species. If, after mitigative measures are imposed, the project or program has the potential to impact threatened or endangered species, consultation with the regulatory agency would be initiated. Consultation would continue until regulatory compliance is achieved.

Environmental Management Office (EMO)

- Arranges for surveys of biological habitats and communities under GRC jurisdiction.
- Arranges for endangered and threatened species management plans for land under GRC jurisdiction.
- Monitors actions in critical habitats for compliance with policy.
- Maintains threatened and endangered species lists from information provided by Federal and State governments.
- Coordinates with technical management of Facilities Division for inclusion of wetlands and floodplains inventories into the Master Facilities Plan.

## **RELATED PROGRAMS**

The National Environmental Policy Act program ([Chapter 2](#) of this Manual) provides for the consideration of endangered and threatened species during the planning phase of any significant construction of facilities projects.

Threatened and endangered species at Lewis Field and Plum Brook Station are addressed in Chapters B.7 and C.7 of the Environmental Resources Document.

## **RESOURCES**

EMO has commissioned and completed biological surveys of both Lewis Field and Plum Brook Station. The Biological Inventory of Plum Brook Station (Ohio Department of Natural Resources, 1994), the Biological Inventory of GRC (Ohio Department of Natural Resources, 1995), and the *Protected Species Management Strategy for NASA Glenn Research Center and NASA Plum Brook Station* (SAIC 2002) are available through EMO. The Endangered Species Management Plan for the NASA Lewis Research Center (The Bionetics Corporation, 1996) is available through EMO, and is scheduled to be updated in 2003.

The U.S. Fish and Wildlife Service, Department of the Interior, is responsible for defining endangered and threatened species. It is required to update its list at least once every 5 years. Its findings are recorded in 50 CFR 17.11 and 17.12.

The Ohio Department of Natural Resources, Division of Natural Areas and Preserves, publishes the official state list of rare native Ohio vascular plants. The Division of Wildlife, ODNR, is responsible for developing and maintaining a list of Ohio Endangered Wildlife Species. The Ohio Department of Natural Resources (ODNR) maintains databases ([http://www.dnr.state.oh.us/odnr/dnap/heritage/Rare\\_Species2002.htm](http://www.dnr.state.oh.us/odnr/dnap/heritage/Rare_Species2002.htm), and <http://www.biosci.ohio-state.edu/~ohbiol/biodiv-v6n1.html>) of the endangered and threatened species for all of Ohio.

## RECORDS

The following record is maintained by the ECT:

- Known occurrences of threatened and endangered species at GRC.

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